REMARKS

Claims 4, 5, 7, and 10-12, and 21-31 are pending in the application. Claims 1-3, 6, 8-9, and 13-20 have been canceled without prejudice.

New claims 32-37 have been added. Claims 32-37 are directed to the method as claimed in claim 21 wherein the herbicide is applied with the safener for selective controlling of unwanted organisms in the useful crop and specify that the useful crop is a cereal, corn, rice, cotton or soybean crop. Support for new claims 32-37 can be found throughout the specification and in particular at page 27, line 13 – page 28, line 6.

REJECTION UNDER 35 USC 103

In the Office Action mailed September 18, 2008, the Examiner rejected claims 4-12, 21-25, and 27-31 under 35 USC 103 as unpatentable over Senaratna et al. (WO 99/25191) in view of Bussler et al. (U.S. Patent 5,710,100). The Examiner asserted that it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of the two cited references to arrive at a method for protecting useful plants or crop plants against harmful environmental factors and phytotoxic side effects of imidazolinone herbicides using the compound of formula I to receive the expected benefit of protecting the crop plant from excessive weed growth as well as protecting the crop plant from the phytotoxic effects of the imidazolinone herbicide.

Applicants continue to traverse this rejection.

A *prima facie* case of obviousness requires the following: (1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings; (2) there must be a reasonable expectation of success; and (3) the prior art reference (or references when combined) must teach or suggest all the claim limitations.

Claim 21 is directed to methods for protecting useful plants or crop plants against phytotoxic side effects of agrochemicals, which comprises applying, as safeners, an effective amount of one or more compounds of the formula (I), as defined in the claim, or salts thereof, before, after or simultaneously with the agrochemicals to the plants, parts of plants, plant seeds or propagation material. Claims 4-5, 7, 10-12, 22-31, and new claims 32-37 depend directly or indirectly from claim 21. New claims 32-37 are directed to the method as claimed in claim 21 wherein the herbicide is applied with the safener for selective controlling of unwanted organisms in the useful crop, and specify that the useful crop is a cereal, corn, rice, cotton or soybean crop.

The Examiner alleged that the claimed methods are *prima facie* obvious over Senaratna et al. because the reference teaches a method for inducing stress tolerance(safener) in plant material comprising applying to the plant material an effective stress-regulating amount of one or more active compounds of formula I of the instant application wherein R1=carboxyl, R2=halogen or hydrogen, R3, R4 and R5= hydrogen or a loweralkyl, and R6=halogen or hydrogen, m, n, and o are each 1, and Z, Z" and Z"' are each oxygen.

Applicants again disagree with the Examiner's position on Senaratna et al. The claimed methods differ from the teachings of Senaratna et al. in the specific structure of the compounds of formula I of the instant application. Senaratna et al. discloses the use of benzoic acid and functional derivatives thereof for inducing stress tolerance in plant material. The compounds of Formula I in Seneratna et al., representing the benzoic acid derivatives, may generally be substituted at the phenyl ring by one or more substituents. Any of the values given for R_1-R_5 can be present at any of the five positions around the phenyl ring. While some of the compounds of Formula I according to the present invention fall within the general formula of Senaratna et al., the substitution pattern of the phenyl ring is not found in the specific examples of Senaratna et al., which disclose only benzoic acid, salicylic acid, 5-sulfosalicylic acid, and acetylsalicylic acid, which compounds themselves do not fall within the scope of the compounds of Formula I as recited in claim 21.

Applicants submit herewith the declaration of Dr. Udo Bickers in support of the patentability of the claimed methods. The declaration of Dr. Bickers presents experimental data showing the safening activity of compounds A1 to A32, which fall within the scope of formula I as defined in claim 21. The compounds were tested with the herbicide thiencarbazone-methyl. As shown in Tables 2-6 of the declaration, the test compounds reduce the herbicidal effect of thiencarbazone-methyl on various useful crop plants such as cotton, corn, rice, wheat and soya. The safener action, however has the advantage that it is selective to the crops; i.e., the effect on important weed plants such as Lolium multiflorum (Italian ryegrass) or Echinolochia-crus-galli (barnyard grass) is not reduced, or is not substantially reduced. Thus, in accordance with the test results, the compounds of formula I, as defined in claim 21, exhibit surprising safener properties in combination with agrochemicals such as herbicides, and are surprisingly useful for protecting various crops against side-effects of the agrochemicals. The compounds of formula I surprisingly do not substantially reduce the desired effect of the agrochemicals on target organisms, such as weeds in case of herbicides, and are thus well-suited as safeners in combination with herbicides for selective weed control in various useful crops.

As is evident from the declaration of Dr. Bickers, and the examples in the present specification, the compounds of formula I, as defined in claim 21, are preferred safener compounds, and, in addition to the effect of protecting important useful plants against phytotoxic effects of an agrochemical, they do not reduce or do not substantially reduce the effect of the agrochemicals on undesired organisms (such as weed plants) in the useful crop.

Applicants submit that the desired safener effects of the compounds of formula I of the present application were not disclosed or rendered obvious by Senaratna et al. Senaratna et al. shows examples of compounds not within the scope of the present claims, which have the effect of reducing phytotoxicity of paraquat and other compounds on certain crop plants (tomato and beans). Senaratna et al., however, fails to teach whether the safener effect is substantially selective to the crop; i.e., whether or not weeds are also safened by the test compound. The tests of Senaratna et al. are mainly designed to determine the effect of the test compound on the crop plants alone. There is no disclosure or suggestion of the effect of the test compound on weeds.

Applicants therefore submit that Senaratna et al. fails to teach the present invention. The safening action of the compounds of formula I of the present invention is selective. The compounds reduce the harmful effect of herbicides on useful crop plants, but do not substantially reduce the herbicidal effects on important weed plants.

Contrary to the examples in Senaratna et al., the claimed methods of protecting useful plants or crop plants work without a substantial inducing period. As shown in the biological examples B1.1 and B1.2 of the specification of the present application and the declaration of Dr. Bickers, the herbicides and safeners were applied simultaneously on the soil or emerged plants. As can be concluded from the examples in the specification and the declaration of Dr. Bickers, the safeners according to the invention apparently do not need an inducing period. Therefore, the mode of action of the safeners is different from the mode of action of the benzoic acid or salicylic acid used in the examples of Senaratna et al. The compounds of formula I of the present invention thus have different properties in comparison with the exemplified compounds taught by Senaratna et al.

Bussler et al. does not remedy the deficiencies of Senaratna et al. Bussler et al. teaches the use of amides of dichloroacetic acid as safeners for imidazolinone-type herbicides. The dichloroacetamide safeners of Bussler et al. are not structurally similar to the safeners of Formula I of the present application. There is no suggestion or disclosure in Bussler et al. of the compounds of Formula I of the present application. A person skilled in the art would therefore not be motivated to replace the dichloroacetamide safeners of Bussler et al. with the compounds of Senaratna et al., or have a reasonable expectation of success for achieving similar safening effects.

Thus, even if, assuming *arguendo*, a *prima facie* case of obviousness can be established using Senaratna et al and Bussler et al., the compounds of formula I of the present claims show unexpected properties in comparison to the compounds exemplified in Senaratna et al., which clearly overcomes or rebuts any assertion that the claimed herbicidal compositions are *prima facie* obvious.

Applicants again respectfully submit that a *prima facie* case of obviousness has not been established, and that the present rejection is improper and should be withdrawn. Claims 4-5, 7, 10-12 and 21-31 and new claims 32-37 are not obvious in view of Senaratna et al. and Bussler et al. Withdrawal of this section 103 rejection is respectfully requested.

In view of the above, the present application is believed to be in a condition ready for allowance. Reconsideration of the application is respectfully requested and an early Notice of Allowance is respectfully requested.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 03-2775, under Order No. 09879-00043-US. A duplicate copy of this paper is enclosed.

Dated: June 18, 2009

Respectfully submitted,

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